



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,460	09/11/2003	Robert Boock	022956-0223	7148
21125 7590 02/26/2007 NUTTER MCCLENNEN & FISH LLP WORLD TRADE CENTER WEST 155 SEAPORT BOULEVARD BOSTON, MA 02210-2604			EXAMINER HOEKSTRA, JEFFREY GERBEN	
			ART UNIT 3736	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/26/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/661,460	<b>Applicant(s)</b> BOOCK ET AL.	
	<b>Examiner</b> Jeffrey G. Hoekstra	<b>Art Unit</b> 3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 December 2006.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

**DETAILED ACTION**

***Notice of Amendment***

1. In response to the amendment filed on 12/13/2006, the current rejections of the claim(s) 1-25 is/are *withdrawn*. The following new and reiterated grounds of rejection are set forth:

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 3736

4. Claims 1-3, 5-7, 10-16, and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stockmeier (US 5,195,956) in view of Altman et al (WO 99/58066).

Stockmeier discloses the claimed tissue harvesting invention including the following:

5. For claim 1, Stockmeier discloses a tissue extraction and maceration device, comprising: an outer tube (1) with an open distal end; a shaft (3 and 12) disposed within said outer tube articulating between a first-proximal (R) and second-distal (A) positions operably exposing the distal end of the shaft from the outer tube, as best seen in Figure 1; a tissue harvesting tip (4 and 5) disposed on the distal end of said shaft for excising tissue; and a cutting member (14) coupled to said shaft proximal to the tissue harvesting tip.

6. For claims 5-7, Stockmeier discloses a tissue extraction and maceration device, wherein the open distal end of the outer tube is defined by an angled edge wall that is angled with respect to a longitudinal axis of the outer tube, as best seen in Figure 1, said angle capable of being about 40 degrees.

7. For claims 10 and 11, Stockmeier discloses a tissue extraction and maceration device, wherein the cutting member (14) comprises at least one curved blade member extending radially from the shaft, as best seen in Figure 2.

8. For claim 12, Stockmeier discloses a tissue extraction and maceration device, wherein the tissue harvesting tip (4 and 5) comprises a cone-shaped member (4) having a plurality of cutting teeth (5) formed on an outer surface thereof, as best seen in Figure 1.

Art Unit: 3736

9. For claim 13, Stockmeier discloses a tissue extraction and maceration device, wherein the tissue harvesting tip (4 and 5) comprises a substantially semi-cylindrical housing (4) having a cutting surface (5) formed around a periphery thereof, as best seen in Figure 1.

10. For claims 14-16, Stockmeier discloses a tissue extraction and maceration device, wherein the tissue harvesting tip (4 and 5) is adapted to penetrate tissue and remove a predetermined tissue volume when articulating from proximal and distal positions (column 1 lines 29-62 and column 2 lines 43-48), said predetermined tissue volume capable of being about  $0.9 \text{ cm}^3$ .

11. For claims 22-24, Stockmeier discloses a tissue extraction and maceration device, wherein the tissue harvesting tip (4 and 5) operably connected to said shaft is adapted to extend beyond the outer tube by a predetermined distance (column 2 lines 43-48), said predetermined distance capable of being about 3 mm.

12. For claim 25, Stockmeier discloses a tissue extraction and maceration device, wherein the outer tube is adapted to be coupled to a vacuum pump effective to draw tissue through at least a portion of the outer tube (column 2 lines 28-29).

13. Thus for claims 1, 2-3, and 21, Stockmeier discloses the claimed tissue harvesting invention except for explicitly disclosing that (a) a cutting member disposed proximal the tissue harvesting tip is effective to macerate a tissue sample excised by the tissue harvesting tip, (b) a biasing element proximally biases the shaft and a trigger mechanism connected to a shaft overcome said biasing element, and (c) a motor, typically electric or pneumatic, coupled to the shaft rotates at speeds ranging from about

Art Unit: 3736

100 to 5000 rpm. Altman et al teaches (a) a cutting member (59) disposed proximal the tissue harvesting tip (38) effective to macerate a tissue sample excised by the tissue harvesting tip, (b) a biasing element (65) biasing the shaft proximally and a trigger mechanism (53) connected to a shaft (12 and 55) that overcome said biasing elements (page 11 lines 10-22), and (c) a motor (24), typically electric or pneumatic, coupled to the shaft capable of rotating at speeds ranging from about 100 to 5000 rpm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the tissue harvesting device as taught by Stockmeier, with the cutting member, biasing, trigger elements, and motor as taught by Altman et al for the purpose of increasing the efficacy of a tissue extraction and maceration device by configuring a tissue extraction and maceration device for increased patient safety and increased user operability during advanced surgical procedures necessitating tissue extraction and maceration.

14. Claims 4 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stockmeier in view of Altman et al and in further view of Shapira (US 6,358,252). Stockmeier in view of Altman et al discloses the claimed tissue harvesting invention except for explicitly disclosing the open distal end is configured to form a seal with a tissue surface or is defined by an angled edge wall further comprising ridged surface features. Shapira teaches a tissue harvesting device (10) comprising an open distal end configured to form a seal with a tissue surface and an angled edge wall including surface features, or ridges (62), as best seen in Figures 2 and 4. It would have been

Art Unit: 3736

obvious to one having ordinary skill in the art at the time the invention was made to modify the tissue harvesting device as taught by Stockmeier in view of Altman et al, with the tissue sealing and surface ridges as taught by Shapira for the purpose of increasing the efficacy of a tissue extraction and maceration device by configuring a tissue extraction and maceration device for increased patient safety and increased user operability during advanced surgical procedures necessitating tissue extraction and maceration.

15. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stockmeier in view of Altman et al and in further view of Majlessi (US 5,871,454). Stockmeier in view of Altman et al discloses the claimed tissue harvesting invention except for a sizing screen configured with openings comprising a diameter of 0.7 – 1.3 mm. Majlessi teaches a tissue-harvesting device (10) with permeable membrane (44") for filtering larger particulate matter, said permeable membrane capable of having openings with a diameter of 0.7 – 1.3 mm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the tissue harvesting device as taught by Stockmeier et al in view of Altman et al, with the screen as taught by Majlessi for the purpose of increasing the efficacy of a tissue extraction and maceration device by configuring a tissue extraction and maceration device for increased patient safety and increased user operability during advanced surgical procedures necessitating tissue extraction and maceration.

***Response to Arguments***

16. Applicant's arguments, see pages 2-3, filed 12/13/2006, with respect to the rejection(s) of claim(s) 1, 5-7, 10-16, and 22-25 under Stockmeier have been fully considered and are persuasive. The Examiner notes the cutting member as disclosed by Stockmeier is not capable of macerating tissue excised by a tissue harvesting tip.

17. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Altman et al. Both Stockmeier and Altman et al disclose tissue extraction and maceration devices.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey G. Hoekstra whose telephone number is (571) 272-7232. The examiner can normally be reached on Monday through Friday, 8:00 a.m. to 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max F. Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JH

